

ABSTRACT OF THE DISCLOSURE

An undulator includes a periodic arrangement of magnets to produce a periodic spatial magnetic field distribution in a magnetic gap defined by the magnets. The undulator further includes a temperature-compensating material selectively arranged to
5 compensate for a temperature-dependent change in the magnetic field of the undulator. The change may be in the strength of the magnetic field, or in the position of the magnetic field centerline. According to one aspect of the invention, the temperature-compensating material is movably arranged, so as to fine tune its compensation effect after it is initially arranged. Alternatively or additionally, the amount of temperature-
10 compensating material may be adjusted to fine tune its compensation effect after it is initially arranged.